

Date Searched: 6/17/2005

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 "716"/\$.ccls. and ((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (coarse\$2 or initial\$2 or global\$2)) and (((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (final\$2 or detailed or local\$2)) same (((("no" or "not" or without) same (overlap\$4 or violat\$4)) or (non-overlap\$4 or non-violat\$4))) and row and @pd>"20050402"

Results: 0 hit

L2 (((coarse or initial\$2 or original\$2) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and "716"/\$.ccls. and ((final\$2 or detailed or complet\$3 or finish\$3) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and (overlap\$4 or non-overlap\$4)) and row and @pd>"20020110") and ((cost\$3 or weigh\$3 or weight\$3 or constrain\$4 or affinity) same row) and @pd>"20050402"

Results: 3 hits

(final\$3 or detail\$3 or fin\$3 or refin\$3 or local\$3) same (plac\$6 or layout or floorplan\$4 or lay-out or laid or assign\$5)

L3 (coarse or initial\$3 or global\$3 or rough) same (plac\$6 or layout or floorplan\$4 or lay-out or laid)

L4 (overlap\$4 or non-overlap\$4 or violat\$4 or valid or legal\$8) same 2

L5 (synthesi\$4 or resynthesi\$4 or re-synthesi\$4 or compil\$3 or map\$4)

L6 716/\$.ccls.

L7 4 and 5 and 6 and @pd>20050402

Results: 12 hits

L8 716/8-14.ccls. and snap\$4

Results: 57 hits

US 5801959 A USPAT Ding; Cheng-Liang et al. 716/11

US 6756242 B1 USPAT Regan; Timothy James 438/14

US 6594811 B2 USPAT Katz; Walter M. 716/12

US 5974245 A USPAT Li; Ying-Meng et al. 716/10

Date Searched: 4/2/2005

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 716/1-18.ccls.

L2 (final\$3 or detail\$3 or fin\$3 or refin\$3 or local\$3) same (plac\$6 or layout or floorplan\$4 or lay-out or laid or assign\$5)

L3 (coarse or initial\$3 or global\$3 or rough) same (plac\$6 or layout or floorplan\$4 or lay-out or laid)

L4 (overlap\$4 or non-overlap\$4 or violat\$4 or valid or legal\$8) same 2

L5 (synthesi\$4 or resynthesi\$4 or re-synthesi\$4 or compil\$3 or map\$4)

L6 3 and 4 and 5 and 1

L7 ((floating adj point) or (real adj2 number)) same (coordinate or position or location)

L8 (snap\$4 or round\$6 or nearest or closest or most) same (legal\$3 or valid\$5 or non-overlap\$4 or empt\$3 or availab\$5) same (location or position or coordinate)

L9 6 and 7 and 8

Results: 2 hits

L10 (row or vertical\$3 or y-location or y-position or y-placement) near10 (two or pair) same (cost or

weigh\$4 or fitness or constrain\$4)

L11 6 and 10 and (200412\$2.pd or 2005.py.)

Results: 0 hit

L12 "716"/\$.ccls. and ((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (coarse\$2 or initial\$2 or global\$2)) and (((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (final\$2 or detailed or local\$2)) same (((("no" or "not" or without) same (overlap\$4 or violat\$4)) or (non-overlap\$4 or non-violat\$4))) and row and (200412\$2.pd or 2005.py.)

Results: 1 hit

L13 (((coarse or initial\$2 or original\$2) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and "716"/\$.ccls. and ((final\$2 or detailed or complet\$3 or finish\$3) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and (overlap\$4 or non-overlap\$4)) and row and @pd>"20020110") and ((cost\$3 or weigh\$3 or weight\$3 or constrain\$4 or affinity) same row) and ("200412\$2.pd" or "2005".py.)

Results: 1 hit

US 6370673 B1

USPAT Hill; Dwight

716/2

Date Searched: 12/10/2004

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 716/1-18.ccls.

L2 (final\$3 or detail\$3 or fin\$3 or refin\$3 or local\$3) same (plac\$6 or layout or floorplan\$4 or lay-out or laid or assign\$5)

L3 (coarse or initial\$3 or global\$3 or rough) same (plac\$6 or layout or floorplan\$4 or lay-out or laid)

L4 (overlap\$4 or non-overlap\$4 or violat\$4 or valid or legal\$8) same 10

L5 (synthesi\$4 or resynthesi\$4 or re-synthesi\$4 or compil\$3 or map\$4)

L6 3 and 4 and 5 and 1

Results: 268 hits

L7 15 ((iterat\$4 or repeat\$3 or repetit\$4 or loop\$3) same 5) or (resynthesi\$4 or re-synthesi\$4)

L8 16 1 and 3 and 4 and 1

Results: 125 hits

L10 (row or vertical\$3 or y-location or y-position or y-placement) near10 (two or pair) same (cost or weigh\$4 or fitness or constrain\$4)

L11 6 and 10

Results: 34 hits

L12 "716"/\$.ccls. and ((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (coarse\$2 or initial\$2 or global\$2)) and (((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (final\$2 or detailed or local\$2)) same (((("no" or "not" or without) same (overlap\$4 or violat\$4)) or (non-overlap\$4 or non-violat\$4))) and row and @pd>"20030213"

Results: 11 hits

L13 (((coarse or initial\$2 or original\$2) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and "716"/\$.ccls. and ((final\$2 or detailed or complet\$3 or finish\$3) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and (overlap\$4 or non-overlap\$4)) and row and @pd>"20020110") and ((cost\$3 or weigh\$3 or weight\$3 or constrain\$4 or affinity) same row) and @pd>"20030213"

Results: 28 hits

US 20020059553 A1	US-PGPUB	Eng, Tommy K.	716/4
US 5311443 A	USPAT	Crain; Steven L. et al.	716/10
US 5798936 A	USPAT	Cheng; Chih-liang ("Eric")	716/13
US 5963455 A	USPAT	Scepanovic; Ranko et al.	716/3
US 6026223 A	USPAT	Scepanovic; Ranko et al.	716/10
US 6080201 A	USPAT	Hojat; Shervin et al.	703/14
US 6209123 B1	USPAT	Maziasz; Robert L. et al.	716/14
US 6223332 B1	USPAT	Scepanovic; Ranko et al.	716/10
US 6230304 B1	USPAT	Groeneveld; Patrick R. et al.	716/7
US 6249902 B1	USPAT	Igusa; Mitsuru et al.	716/10
US 6292929 B1	USPAT	Scepanovic; Ranko et al.	716/14
US 20010003843 A1	US-PGPUB	SCEPANOVIC, RANKO et al.	716/7
US 20010010090 A1	US-PGPUB	Boyle, Douglas B. et al.	716/2
US 20040107408 A1	US-PGPUB	Sano, Masahiro et al.	716/2
US 6321366 B1	USPAT	Tseng; Ping-Sheng et al.	716/6
US 6553338 B1	USPAT	Buch; Premal V. et al.	703/14
US 6080204 A	USPAT	Mendel; David Wolk	716/7
US 6449761 B1	USPAT	Greidinger; Yaacov (Jacob) et al.	716/11
US 6446239 B1	USPAT	Markosian; Ara et al.	716/2
US 6286128 B1	USPAT	Pileggi; Lawrence et al.	716/18
US 6155725 A	USPAT	Scepanovic; Ranko et al.	716/9
US 6091892 A	USPAT	Xue; Hua et al.	716/12
*US 6014506 A	USPAT	Hossain; Moazzem et al.	716/11
US 4742471 A	USPAT	Yoffa; Ellen J. et al.	716/12
US 5619419 A	USPAT	D'Haeseleer; Patrik et al.	716/8
US 6282694 B1	USPAT	Cheng; Chung-Kuan et al.	716/10
*US 6370673 B1	USPAT	Hill; Dwight	716/2
US 6378114 B1	USPAT	Shenoy; Narendra V. et al.	716/7
US 6671859 B1	USPAT	Naylor; William C. et al.	716/2
US 6701289 B1	USPAT	Garnett; Robert E. et al.	703/14
US 20020138816 A1	US-PGPUB	Sarrafzadeh, Majid et al.	716/11
US 6442743 B1	USPAT	Sarrafzadeh; Majid et al.	716/10
US 6360356 B1	USPAT	Eng; Tommy K.	716/18
US 5847965 A	USPAT	Cheng; Chih-liang Eric	716/9
US 5825661 A	USPAT	Drumm; Anthony DeGroff	716/10
US 5726903 A	USPAT	Kerzman; Joseph P. et al.	716/2
US 6099583 A	USPAT	Nag; Sudip K.	716/16
US 6086631 A	USPAT	Chaudhary; Kamal et al.	716/16

Databases Searched: EPO, JPO, IBM TDB, Derwent

Plurals: ON

Terms Searched:

L1 (row or vertical\$3 or y-location or y-position or y-placement) near10 (two or pair) same (cost or weigh\$4 or fitness or constrain\$4)

L2 (coarse or initial\$3 or global\$3 or rough) same (plac\$6 or layout or floorplan\$4 or lay-out or laid)

L3 (final\$3 or detail\$3 or fin\$3 or refin\$3 or local\$3) same (plac\$6 or layout or floorplan\$4 or lay-out or laid or assign\$5)

L4 1 and 2 and 3

Results: 5 hits

L5 (overlap\$4 or non-overlap\$4 or violat\$4 or valid or legal\$8)

L6 (wirelength or (length near5 (net or wire or wiring or conductor or interconnect\$4 or connect\$4

or path)))

L7 (congest\$4 or overcrowd\$3 or dense\$1)

L8 (time or timing or delay or skew)

L9 2 and 3 and 5 and 6 and 7 and 8 and 9

Results: 4 hits

L10 ((iterat\$4 or repeat\$3 or repetit\$4 or loop\$3) same 12) or (resynthesi\$4 or re-synthesi\$4)

L11 2 and 3 and 10

Results: 471 hits

L12 (synthesi\$4 or resynthesi\$4 or re-synthesi\$4 or compil\$3 or map\$4)

L13 11 and 12

Results: 61 hits

L14 g06f\$.ipc. and 13

Results: 2 hits

L15 (IBM TDB only) 13

Results: 58 hits

NA9003341 IBM_TDB

NN881174 IBM_TDB

NN86044981 IBM_TDB

IEE/IEEE Xplore

Terms Searched: (row or vertical* or y-location or y-position or y-placement) <near/10> (two or pair) and (cost or weigh* or fitness or constrain*) and

(coarse or initial*)and (plac* or layout or floorplan* or lay-out or laid) and (final* or detail* or subsequent* or iterat* or repeat* or repetiti*) and (plac* or layout or floorplan* or lay-out or laid or assign*)

Results: Your search matched **0** of **1099723** documents

Terms Searched: (overlap* or non-overlap* or violat* or valid or legal*) and (wirelength or (length <near/5> (net or wire or wiring or conductor or interconnect* or connect* or path))) and (congest* or overcrowd* or dense*) and (time or timing or delay or skew) and (cost or weigh* or fitness or constrain*) and

(coarse or initial*)and (plac* or layout or floorplan* or lay-out or laid) and (final* or detail* or subsequent* or iterat* or repeat* or repetiti*) and (plac* or layout or floorplan* or lay-out or laid or assign*)

Results: Your search matched **0** of **1099723** documents

Terms Searched: (initial* or coarse) and (final* or detail* or fine) and (plac* or floorplan* or floor-plan* or layout) and (synthes* or re-synthes* or resynthes*) and (iterat* or repeat* or repetit*)

Results: Your search matched **6** of **1099723** documents

Terms Searched: (initial* or coarse or rough*) and (final* or detail* or fine) and (plac* or floorplan* or floor plan* or layout) and (synthes* or re synthes* or resynthes* or compil* or map*) and (iterat* or repeat* or repetit*)

Results: Your search matched **11** of **1099723** documents.

Terms Searched: (initial* or coarse or rough*) and (final* or detail* or fine) and (plac* or floorplan* or floor plan* or layout) and (synthes* or re synthes* or resynthes*)

Results: Your search matched **25** of **1099723** documents.

Searches from Parent Case 09/437,996

Date Searched: 2/13/2003

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 716/\$.ccls. and ((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement

or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (coarse\$2 or initial\$2 or global\$2)) and (((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (final\$2 or detailed or local\$2)) same (((("no" or "not" or without) same (overlap\$4 or violat\$4)) or (non-overlap\$4 or non-violat\$4))) and row and @pd>20020826

Results: 9 hits

L2 (((coarse or initial\$2 or original\$2) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and 716/\$.ccls. and ((final\$2 or detailed or complet\$3 or finish\$3) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and (overlap\$4 or non-overlap\$4)) and row and @pd>20020110) and ((cost\$3 or weigh\$3 or weight\$3 or constrain\$4 or affinity) same row) and @pd>20020826

Results: 10 hits

US 20020138816 A1	US-PGPUB	Sarrafzadeh, Majid et al.	716/11
US 6442743 B1	USPAT	Sarrafzadeh, Majid et al.	716/10

US 20020124232 A1	US-PGPUB	Grodd, Laurence W.	716/9
US 6493658 B1	USPAT	Koford, James S. et al.	703/1

Date Searched: 8/26/2002

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 716/\$.ccls. and ((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (coarse\$2 or initial\$2 or global\$2)) and (((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (final\$2 or detailed or local\$2)) same (((("no" or "not" or without) same (overlap\$4 or violat\$4)) or (non-overlap\$4 or non-violat\$4))) and row and @pd>20011211

Results: 1 hit

L2 (((coarse or initial\$2 or original\$2) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and 716/\$.ccls. and ((final\$2 or detailed or complet\$3 or finish\$3) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))) and (overlap\$4 or non-overlap\$4)) and row and @pd>20020110

Results: 18 hits

L3 (cost\$3 or weigh\$3 or weight\$3 or constrain\$4 or affinity) same row

L4 2 and 3

Results: 4 hits

US 6370673 B1	USPAT	Hill, Dwight	716/2
---------------	-------	--------------	-------

US 6385758 B1	USPAT	Kikuchi, Hideo et al.	716/2
---------------	-------	-----------------------	-------

US 6381731 B1	USPAT	Grodd, Laurence W.	716/7
---------------	-------	--------------------	-------

Date Searched: 1/10/2002

Databases Searched: USPAT, USPGPUB

Plurals: ON

Terms Searched:

L1 716/\$.ccls.

L2 (coarse or initial\$2 or original\$2 or rough) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))

L3 (final\$2 or detailed or complet\$3 or finish\$3) same (place\$1 or placement or layout or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4))

L4 overlap\$4 or non-overlap\$4
 L5 1 and 2 and 3 and 4
 Results: 267 hits
 L6 row and 5
 Results: 134 hits
 L7 1 and 2 and (3 same 4) and row
 Results: 59 hits
 L8 (nonlinear\$2 or non-linear\$2 or (conjugate adj gradient) or quasi-newton or newton) same 2
 L9 1 and 8 and (3 same 4) and row
 Results: 2 hits
 L10 (floorplan\$4 or (floor adj1 plan\$4) or placement or layout) and (row or row-based)
 L11 (lookahead or (look adj1 ahead)) same row
 L12 1 and 10 and 11
 Results: 3 hits
 L13 (quadratic or polynomial) near5 time
 L14 1 and 10 and 13
 Results: 4 hits

US 6212668 B1 USPAT Tse, John , et al. 716/7
 US 5267176 A USPAT Antreich, Kurt , et al. 716/10

Date Searched: 12/11/2001

Databases Searched: USPAT, US-PGPUB

Plurals: ON

Terms Searched:

L1 716/\$.cccls.
 L2 (layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (coarse\$2 or initial\$2 or global\$2)
 L3 (layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (final\$2 or detailed or local\$2)
 L4 1 and 2 and 3
 Results: 553 hits
 L5 3 same (overlap\$4 or violat\$4 or non-overlap\$4 or non-violat\$4)
 L6 1 and 2 and 5
 Results: 107 hits
 L7 3 same (((("no" or "not" or without) same (overlap\$4 or violat\$4)) or (non-overlap\$4 or non-violat\$4))
 L8 1 and 2 and 7
 Results: 48 hits
 L9 8 and row
 Results: 32 hits

Databases Searched: EPO, JPO, IBM TDB, Derwent

Plurals: ON

Terms Searched:

L1 (layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (coarse\$2 or initial\$2 or global\$2)
 L2 ((layout or (lay\$3 adj out) or (laid adj out) or lay\$3-out or laid-out or placement or plac\$3 or floorplan\$4 or floor-plan\$4 or (floor adj plan\$4)) same (final\$2 or detailed or local\$2)) same (((("no" or "not" or without) same (overlap\$4 or violat\$4)) or (non-overlap\$4 or non-violat\$4))
 L3 (1 and 2) not us.pc.
 Results: 23 hits

US 6282693 B1 USPAT Naylor, William C. , et al. 716/8

US 5818729 A	USPAT Wang, Chi-Hung , et al. 716/9	
US 5682321 A	USPAT Ding, Cheng-Liang , et al. 716/8	
US 6209123 B1	USPAT Maziasz, Robert L. , et al. 716/14	
US 6099583 A	USPAT Nag, Sudip K. 716/16	
US 6091892 A	USPAT Xue, Hua , et al. 716/12	
US 6086631 A	USPAT Chaudhary, Kamal , et al. 716/16	
US 6014506 A	USPAT Hossain, Moazzem , et al. 716/11	
US 5987086 A	USPAT Raman, Srilata , et al. 716/1	
US 5943243 A	USPAT Sherlekar, Deepak D. , et al.	716/9
US 5914887 A	USPAT Scepanovic, Ranko , et al. 716/8	
US 5903461 A	USPAT Rostoker, Michael D. , et al.	700/121
US 5682321 A	USPAT Ding, Cheng-Liang , et al. 716/8	
NN9012355	IBM TDB	

Date Searched: 12/13/01

Databases Searched: IEE/IEEE

Terms Searched: (layout or (lay* <near/1> out) or (laid <near/1> out) or lay*-out or laid-out or placement or plac* or floorplan* or floor-plan* or (floor <near/1> plan*)) and (coarse* or initial* or global*) and (final* or detailed or local*) and (((("no" or "not" or without) <near/5> (overlap* or violat*)) or (non-overlap* or non-violat*))

Results: Your search matched 6 of 733708 documents.

Terms Searched: (layout or (lay* <near/1> out) or (laid <near/1> out) or lay*-out or laid-out or placement or plac* or floorplan* or floor-plan* or (floor <near/1> plan*)) and (coarse* or initial* or global*) and (final* or detailed or local*)

Results: Your search matched 612 of 733708 documents.

Terms Searched: (layout or (lay* <near/1> out) or (laid <near/1> out) or lay*-out or laid-out or placement or plac* or floorplan* or floor-plan* or (floor <near/1> plan*)) and (coarse* or initial* or global*) and (final* or detailed or local*) and overlap*

Results: Your search matched 6 of 733708 documents.

Date Searched: 1/10/02

Database Searched: IEE/IEEE

Terms Searched: circuit and (floorplan* or (floor <near/1> plan*) or placement or layout) and (row or row-based)

Results: our search matched 129 of 739337 documents.

Terms Searched: circuit and (floorplan* or (floor <near/1> plan*) or placement or layout) and (row or row-based) and (lookahead or (look <near/1> ahead))

Results: Your search matched [0] of [739337] documents.

Terms Searched: circuit and (floorplan* or (floor <near/1> plan*) or placement or layout) and (row or row-based) and (quadratic or polynomial)

Results: Your search matched 5 of 739310 documents.

Terms Searched: circuit and (floorplan* or (floor <near/1> plan*) or placement or layout) and (conjugate <near/1> gradient)

Results: Your search matched 4 of 739337 documents.